WHAT IS CLAIMED IS:

1. A non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

2. The immunogen of claim 1 having the amino acid sequence of PE Δ E553 except that the sequence of domain Ib of PE Δ E553 comprises the non-native epitope between two cysteine residues of domain Ib.

3. The immunogen of claim 1 wherein the cell recognition domain is domain Ia of PE.

4. The immunogen of claim 1 wherein cell recognition domain binds to α2-macroglobulin receptor ("α2-MR"), epidermal growth factor ("EGF") receptor; the IL-2 receptor; the IL-6 receptor; HIV-infected cells; a chemokine receptor; a leukocyte cell surface receptor; a ligand for the IgA receptor; or an antibody or antibody fragment directed to a receptor.

5. The immunogen of claim 1 wherein cell recognition domain comprises amino acid sequences of a growth factor or an antibody.

6. The immunogen of claim 1 wherein cell recognition domain is comprised within the ER retention domain.

7. The immunogen of claim 1 wherein the translocation domain comprises amino acids 280 to 364 of domain II of PE.

8. The immunogen of claim 1 wherein the translocation domain is domain II of PE.

9. The immunogen of claim 1 wherein the non-native epitope domain comprises a cysteine-cysteine loop that comprises the non-native epitope.

10. The immunogen of claim 1 wherein the non-native epitope domain comprises an amino acid sequence encoding a non-native epitope inserted between two cysteine residues of domain Ib of PE.

11. The immunogen of claim 1 wherein the non-native epitope domain comprises an amino acid sequence selected from CTRPNYNKRK RIHIGPGRAF YTTKNIIGTI RQAHC (SEQ ID NO:3) or CTRPSNNTRT SITIGPGQVF YRTGDIIGDI RKAYC (SEQ ID NO:4).

12. The immunogen of claim 1 wherein the ER retention domain is domain III of PE comprising the mutation ΔE553.

13. The immunogen of claim 1 wherein the ER retention sequence comprises REDLK (SEQ ID NO:11), REDL (SEQ ID NO:12) or KDEL (SEQ ID NO:13).

14. The immunogen of claim 1 which is ntPE-V3MN14 or ntPE-V3MN26.

15. The immunogen of claim 1 wherein the non-native epitope is an epitope from a viral, bacterial or parasitic protozoan pathogen.

16. The immunogen of claim 9 wherein the non-native epitope is an epitope of a V3 loop of gp120 of HIV-1.

17. The immunogen of claim 9 wherein the non-native epitope is an epitope of a principal neutralizing loop of a retrovirus.

18. The immunogen of claim 9 wherein the non-native epitope is an epitope of a major neutralizing loop of HIV-2 or a V3 loop of gp120 of HIV-1 of at least 8 amino acids including a V3 loop apex.

19. A recombinant polynucleotide comprising a nucleotide sequence encoding a non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

20. The recombinant polynucleotide of claim 19 which is an expression vector further comprising an expression control sequence operatively linked to the nucleotide sequence.

21. The recombinant polynucleotide of claim 19 having the amino acid sequence of PE wherein domain Ib of PE further comprises the non-native epitope between two cysteine residues of domain Ib.

22. A recombinant non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen cloning platform comprising a nucleotide sequence encoding: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence and (4) a splicing site between the sequence encoding the translocation domain and the sequence encoding the ER retention domain.

23. The recombinant cloning platform of claim 22 which is an expression vector further comprising an expression control sequence operatively linked to the nucleotide sequence.

24. A method of producing antibodies against a non-native epitope, wherein the non-native epitope naturally exists within a cysteine-cysteine loop comprising the step of inoculating an animal with a non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising a cysteine-cysteine loop that contains within the loop an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

25. The method of claim 24 wherein the cysteine-cysteine loop comprises no more than about 30 amino acids.

26. The method of claim 24 wherein the non-native epitope is an epitope of the V3 domain of HIV-1.

27. A vaccine comprising at least one non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

28. The vaccine of claim 27 comprising a plurality of PE-like chimeric immunogens, each immunogen having a different non-native epitope.

29. The vaccine of claim 27 further comprising a pharmaceutically acceptable carrier.

30. The vaccine of claim 27 in the form of an immunization dose wherein the immunogen is present in an amount effective to elicit in a human subject an immune response against the non-native epitope.

31. The vaccine of claim 28 wherein the different non-native epitopes are epitopes of different strains of the same pathogen.

32. The vaccine of claim 31 wherein the non-native epitope is an epitope of the V3 loop of HIV-1 and the different strains of the same pathogen are HIV-1 MN and HIV-1 Thai-E.

33. A method of eliciting an immune response against a non-native epitope in a subject, the method comprising the step of administering to the subject a vaccine comprising at least one non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

34. The method of claim 33 wherein the non-native epitope comprises a binding motif for an MHC Class II molecule of the subject and the immune response elicited is an MHC Class-II dependent cell-mediated immune response.

35. The method of claim 33 wherein the non-native epitope comprises a binding motif for an MHC Class I molecule of the subject and the immune response elicited is an MHC Class-I dependent cell-mediated immune response.

36. The method of claim 33 wherein the non-native epitope is an epitope of the V3 domain of HIV-1.

37. The method of claim 33 wherein the vaccine is administered as a prophylactic treatment against a disease mediated by an agent bearing the non-native epitope.

38. The method of claim 33 wherein the vaccine is administered as a therapeutic treatment against a disease mediated by an agent bearing the non-native epitope.

39. A polynucleotide vaccine comprising at least one recombinant polynucleotide comprising a nucleotide sequence encoding a non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

40. A method of eliciting an immune response against a non-native epitope in a subject, the method comprising the step of administering to the subject a polynucleotide vaccine comprising at least one recombinant polynucleotide comprising a nucleotide sequence encoding a non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a

sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence.

41. The method of claim 40 wherein the recombinant polynucleotide is an expression vector comprising an expression control sequence operatively linked to the nucleotide sequence.

42. The method of claim 40 wherein the nucleotide sequence further encodes a mammalian secretory sequence attached to the amino terminus of the immunogen.

43. A method of eliciting an immune response against a non-native epitope in a subject, the method comprising the steps of transfecting cells with a recombinant polynucleotide comprising a nucleotide sequence encoding a non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen, the PE-like chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence substantially identical to a sequence of PE domain II sufficient to effect translocation to a cell cytosol; (3) a non-native epitope domain comprising an amino acid sequence of between 5 and 1500 amino acids that encodes a non-native epitope; and (4) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence, and administering the cells to the subject.